R E P O R T R E S U M E S

ED 014 275 JC 660 369

GUIDELINES FOR THE ESTABLISHMENT OF AN OFFICE FOR INSTITUTIONAL RESEARCH AND DEVELOPMENT AT PASADENA CITY COLLEGE.

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PUB DATE JAN 66

EDRS PRICE MF-$0.25 HC-$1.76 42P.

DESCRIPTORS- *JUNIOR COLLEGES, *INSTITUTIONAL RESEARCH, *RESEARCH AND DEVELOPMENT CENTERS, RESEARCHERS, ADMINISTRATIVE ORGANIZATION,

THIS PROPOSAL FOR THE ESTABLISHMENT OF AN OFFICE OF INSTITUTIONAL RESEARCH AND DEVELOPMENT AT PASADENA CITY COLLEGE WAS BASED ON DATA COLLECTED FROM (1) A REVIEW OF RELEVANT LITERATURE, (2) CONSULTATION WITH RESEARCH PERSONNEL AT OTHER INSTITUTIONS, (3) INTERVIEWS WITH LOCAL PERSONNEL, AND (4) PARTICIPATION IN CONFERENCES OF RESEARCH WORKERS. RECOMMENDATIONS INCLUDE (1) ESTABLISHMENT OF A PROGRAM OF INSTITUTIONAL RESEARCH, (2) EMPLOYMENT OF A DIRECTOR, TO BE A LINE OFFICER REPORTING DIRECTLY TO THE PRESIDENT, (3) A MINIMUM BUDGET EQUAL TO ONE-HALF OF 1 PERCENT OF THE ANNUAL COLLEGE EXPENDITURES, AND (4) AN ADVISORY COMMITTEE COMPOSED OF THE COLLEGE DEANS AND THE LIBRARIAN. FUNCTIONS OF THE OFFICE WOULD BE (1) STIMULATION AND FACILITATION OF COOPERATIVE STAFF PLANNING, (2) ASSISTANCE TO STAFF MEMBERS IN THEIR RESEARCH EFFORTS, (3) COLLECTION AND CATALOGING OF RESEARCH REPORTS AND DISSEMINATION OF FINDINGS, (4) ESTABLISHMENT OF A RESEARCH REFERENCE LIBRARY, (5) ASSISTANCE IN DATA GATHERING, (6) PROVISION OF INFORMATION NEEDED IN DECISION MAKING, AND (7) LIAISON BETWEEN THE COLLEGE AND THE COMMUNITY. (WO)

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Guidelines for the Establishment of an Office for Institutional Research and Development at Pasadena City College

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Education 264 A

UNIVERSITY OF CALIF.
LOS ANGELES

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INTRODUCTION

Purpose of the Study

In anticipation of the separation of the current junior college district from the Pasadena Unified School District and the establishment of a new junior college district involving three new districts, the President of Pasadena City College, Dr. Armen Sarafian, recommended that a study of institutional research be undertaken in order to determine the advisability of establishing an office for institutional research at Pasadena City College.

The following purposes were identified as conferences were held with various administrative personnel at the College:

1. To develop general policies and procedures regarding institutional research and development at Pasadena City College
2. To study the possibilities of establishing an office for institutional research and development, with appropriate professional and clerical personnel at Pasadena City College
3. To study current junior college research policies and procedures in order to recommend ways of involving staff personnel in institutional research, and planning for college development.
4. To suggest methods for coordinating current research projects at Pasadena City College and disseminating results and findings to staff members
5. To help define the role of the President and his staff in institutional research and college development

6. To study the role of personnel in the office for institutional research in contributing to optimum community relationships in the "new districts" which will soon vote to join the Pasadena City College Junior College District.

Methods Used in the Study

Recommendations in the study developed from the following methods used:

1. A comprehensive study of recent literature, particularly specialized studies and conference reports regarding institutional research
2. Consultations with personnel responsible for institutional research at selected junior colleges which have developed outstanding institutional research programs
3. Interviews with personnel at Pasadena City College - the President, Deans, and selected staff personnel who are concerned with or who are involved with institutional research to determine views and needs regarding the establishment of an office for institutional research
4. Participation in research conferences

Value of the Study

1. Hopefully, the study will influence the establishment of an office for institutional research and development which will coordinate varied research projects at Pasadena City College, disseminate findings to staff members, encourage the application and utilization of research results, and thereby improve the effectiveness of the instructional program

2. The study will indicate how the identification of the nature, scope, and responsibility for institutional research, particularly specific functions and lines of responsibilities, will strengthen the President's effectiveness by providing research findings for general planning, especially long range projections of needs and methods of fulfilling these needs.
3. The aspirations and needs of the three districts which will soon vote to join the Pasadena City College district will be more clearly identified by an active and sensitive office for research and development - and thereby, plans for the involvement of these areas will more readily emerge.

Summary of Recommendations

1. Institutional research programs should be planned at Pasadena City College to marshall personnel, faculties, and finances in order to formally adopt a commitment to institutional research and to energetically initiate and develop self-appraisal policies and procedures.
2. The employment of a full-time Director of Research and Development, with appropriate and necessary clerical assistance is recommended.
3. The Director of Research and Development should be a person who has a broad range of professional education and experience, an abiding interest in research, and a deep well of creativity.
4. The Director of Research and Development would serve as a "line officer," reporting directly to the President.

5. The vital roles of the Director of Research and Development are:

   a. To stimulate and facilitate cooperative staff planning which is designed to continuously strengthen the educational program.

   b. To provide assistance to staff members in their research efforts

   c. To collect and catalogue all research studies and to provide for the dissemination of findings

   d. To establish a research reference library

   e. To assist in data gathering, particularly inquiries for information requested of the college and/or college personnel

   f. To serve as the "right arm" of the President in providing information which is needed in decision-making.

   g. To fulfill a liason role between the College and the community, particularly that segment of the junior college district which will soon join the district, in promoting optimum school-community relationships

6. The Office of Research and Development should have a minimum budget, initially, or ½ of 1% ($41,983) of its annual budget (1964-1965, $8,378,688).

7. It is suggested that the Research and Development office be located in Building C - utilizing rooms adjacent to the extended day office, and be provided with essential office accoutrements.

8. An Advisory Committee for the Director of Research and Development should be appointed by the President

9. The Advisory Committee should be composed of the following personnel: Dean of Instruction, Dean of Extended Day, Dean of Student Personnel, Administrative Dean, the Librarian, and the Dean of Vocational Education.

10. The Director of Research and Development must be alert and sensitive to the versatile and factually indispensible roles computers are currently playing in research as well as in school administration

11. It is recommended that the Pasadena City College Computer Science Department be assigned a "line organization" function, and be responsible to the Director of Research and Development.

12. It is recommended that the Director of Research and Development participate in the early stages of the development of project ERIC by active involvement in the planning program recently inititated at the University of California at Los Angeles

PASADENA CITY COLLEGE

A Brief Overview

In response to demands for higher educational facilities within the City of Pasadena, one year of college work was added to the program offered by Pasadena High School in 1924. The second year of collegiate work was soon offered and in 1928 Pasadena High School and Pasadena Junior College merged into a four year junior college with grades eleven to fourteen inclusive.

A second junior college, John Muir College, was organized in 1946 when enrollment increased sharply at Pasadena Junior College. Since the colleges served the general and vocational needs of many terminal as well as college preparatory students, the term "junior" was dropped. In 1947 the official names of the two schools became Pasadena City College and John Muir College.[1]

During the school year 1953-54 the Board of Education decided to change the school system organization from 6-4-4 to 6-3-3-2 plan and to combine the two colleges into a single college- Pasadena City College.

The College is fully accredited by the Western Association of Schools and Colleges as well as by the California State Department of Education. During the regular semester Pasadena City College offers classes from 7 am until 10 pm. The College year is divided into four sessions: two semesters extending from September until June, plus two six-week summer sessions. A few eight and twelve week courses in mathematics and science were recently added to the summer session.

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1. Pasadena City Schools, 81 Years of Public Education in Pasadena, Superintendent's Annual Report, Pasadena, California, p. 73

More than 300 continuing education classes covering a wide range of topics are offered at 44 sites throughout the Pasadena City College District.[1.] The regular day student body enrollment is 7947, and the extended day, 4568 - a total of 12,515 students. Active adult education programs (exclusive of the Lecture Series and Tuesday Evening Forum) serve 10,654 a total junior college enrollment of 23,169.[2.]

The total assessed valuation of the Junior College District is $444,247,870.00(realty, secured personal property, and utilities). The assessed valuation per student is $44,445.[3.]

The Pasadena City College budget (1964-1965) is $8,378,688, with a current tax rate of .4477¢ general purposes tax. Including the outside taxes, the total rate is .5134¢.[4.]

The Superintendent recently reported the following value of the College plant:[5.]

Buildings	$10,617,970
Contents	2,183,050
Total	$12,801,020
Land	5,300,000
Grand total	$18,101,020

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1. Pasadena City Schools, Minutes of Special Meeting, January 13, 1965, #30, p. 15,200
2. Hanson, J.T., Superintendent's Bulletin, # 111, Pasadena City Schools, Pasadena, November 9, 1965
3. Jenkins, R.E., Facts and Figures, Pasadena City Schools Budget Report, Pasadena City Schools, Pasadena, 1964
4. Pasadena City Schools, Minutes of Special Meeting, April 13, 1965, . . . #15, p. 15, 382
5. Pasadena City Schools, Minutes of Special Meeting, February 4, 1965 #33, p. 15, 248

A succession of outstanding superintendents and college presidents in cooperation with highly qualified administrative and instructional staff personnel have fulfilled the community's visions and aspirations for a dynamic, functional community college. Of the 325 full time professional staff members, 31 have a doctor's degree and 224 have a master's degree along with further graduate study-[1.] seventy have a bachelor's degree, "or less."

Reorganization Plans

The current junior college district encompasses the communities of Altadena, LaCanada, Temple City, and Pasadena and is governed by a five member Board of Education. In compliance with legislative enactment requiring the identification of school districts which are not part of a junior college district to join one by September 15, 1967, the communities of Arcadia, South Pasadena, and San Marino will probably vote to join the Pasadena City College District by July 1, 1967.

As a result of the reorganization, Pasadena City College will no longer be governed by the Pasadena Unified School District Board of Education but will become an integral part of the seven-school district which will be governed by a new Board of Education to be elected in the Spring of 1966.[2.]

Many services and functions which are currently rendered and/or performed by the Pasadena Unified School District will consequently no longer be available to the new junior college district. One of these essential

1. Pasadena City Schools, Minutes of Special Meeting, January 13, 1965, #30, p. 15,200
2. Brisco, W.S., An Examination of the Relationship of the Pasadena Junior College District and the Pasadena Unified District, Education Consultants, Pasadena City Schools District Report, 1964, 55 pp.
   Melbo, I., An An Analysis of Junior College Reorganization, Pasadena City Schools District Report, 1962, 48 pp.

services, research, which is currently conducted by the Pasadena Unified School District Research Office, under the direction of Dr. Joseph Hanson, will no longer be available to personnel at Pasadena City College as a result of district reorganization. It is thus imperative that plans be initiated in the immediate future for the creation and development of a new research office to serve the emergent needs of the new junior college district.

The major concern of this study, therefore, is to examine current policies and procedures regarding institutional research at Pasadena City College, to study the literature relating to institutional research, to examine selected junior colleges with outstanding institutional research programs, and to recommend guidelines for the establishment of an office for institutional research for the new junior college district which will become operational on July 1, 1967.

RESEARCH PROGRAM AT PASADENA CITY COLLEGE

The major research effort at Pasadena City College has traditionally been conducted by personnel in the Student Placement Office. The director of Student Personnel Services has annually compiled reports covering:

Report of Application and Referrals

Student Applications

Work orders and referrals

Career Placements

Report of Foreign Student Placements

Report on International Students

Work Study Program

Office Experience Occupational Relations

The Student Placement Office functions have been assigned to a Dean of Placement Services - a line officer who reports to the Dean of Student Personnel Services.

In September 1964 the responsibility for research was assigned to the Dean of Placement Services and the title of this office was changed to Student Personnel Services - Placement and Research. Serious plans to assign a full-time director of research whose sole responsibility would be institutional research were deferred when budgetary problems precluded implementation of plans. In September of 1965 the responsibility for research was rescinded and the office reverted to its original functions.

As a result of the initiative of the current Dean of Student Placement Services, a file of research papers, annual reports, and studies was initiated in September 1962. Studies were filed "by

department" conducting the study and cross-filed by subject matter.

An analysis of the May 1965 Research Report indicated the following number of completed studies and annual reports:[1.]

1952	1
1957	1
1958	1
1959	1
1960	1
1961	7
1962	6
1963	16
1964	15
1965	5
Total	54

There are 41 completed studies on file, out of a total of 54. At the present time, 26 studies are currently in the process of completion.

Although there appears to be a limited number of research projects in the files, there is general consensus among current and former staff members that truly significant studies were conducted during the various stages of the College's growth and development into an institution of international renoun and stature.[2.]

The absence of recorded research studies strongly suggest at least one compelling reason for the establishment of an office for research which will materially contribute, among other objectives discussed elsewhere in this study, to the development of a reference library of research studies which will record for future reference and assessment the goals, progress, and exceptional programs which characterize Pasadena City College.

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1. Chittenden, J.S., Placement, Annual Report, 1964-1965, Pasadena City College, Pasadena, May 1965, pp. 23 - 26
2. Sexson, J.S., and Harbeson, J.W., The New American College, Harper & Bros., New York, 1946

IMPORTANCE OF INSTITUTIONAL RESEARCH

A review of junior college literature reveals that there is considerable interest regarding the critically important function which institutional research can - and should play in a dynamic, functional educational program. The concern for greater commitment to educational research has been forcefully expressed by Philip H. Coombs who has asserted that "we must invest much more in research and development...to sustain a vigorous technological frontier for education...instead of devoting less than 1/10 of 1 % of the educational dollar to research and development we should be devoting at least two percent." [1.] It should be noted, however, that industry is currently spedning 3 % on research according to authoritative reports.[2.]

Similarly, one of the most comprehensive studies of the critical problems and needs of California junior colleges identified the "promotion and dissemination of junior college research and development" second in order of importance - the first concern was the "effectiveness and improvement of instruction." [3.]

Research activities specifically identified in this study were:

1. Analysis and preparation of summaries of nation-wide junior college research and development as a continuous service
2. Distribution, as a continuous service, of such summaries to all California junior colleges and perhaps to all junior colleges of the nation

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1. Merson, T.B., "The Importance of Institutional Research in the Junior College," Institutional Research in the Junior College, Occasional Report No. 3, UCLA Junior College Leadership Program, Los Angeles, School of Education, University of California, 1962, p. 9
2. Ibid., p. 9
3. Peterson, B.H., Critical Problems and Needs of California Junior Colleges, California State Department of Education, Foothill College, 1965, p. 26

3. Promotion of institutional research by each junior college
4. Development of ways and means for exchange of reports and significant developments among various colleges
5. Development of guidelines for a basic program of institutional research
6. Development of common basis for gathering data[1].

Institutional research in the junior college was the central theme of the recent conference sponsored by the University of California at Los Angeles and the Commission for Accrediting California Junior Colleges. An eloquent plea was made for institutional research by Dr. B. Lamar Johnson when he reported on the current status of research in Western junior colleges and the research program at Stephens College.[2] Aspirations for a high caliber of institutional research programs were clearly discernible in his report of practices which were designed to "aid other (research) programs to expand quantitatively, to strengthen qualitatively, and particularly to translate findings into action - as a consequence of wide faculty and student participation undergirded by expert guidance and assistance...to develop effective programs of institutional research in junior colleges."[3]

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1. Ibid., p. 26
2. Johnson, B.L., Institutional "Research" in the "Junior Colleges of Western States," Islands of Innovation, Occasional Report No. 6, UCLA Junior College Leadership Program, Los Angeles, School of Education, University of California, 1964
3. Ibid., p. 29

Johnson's findings in his survey of 100 Western junior colleges are not only informative and illuminating but also suggestive of ways to strengthen research programs in the junior colleges"[1].

1. The junior colleges engage in considerable institutional research
2. The amount of institutional research varies widely from college to college, with more than one-fourth of the colleges reporting "little research"
3. Less than one-third of the colleges have even part-time coordinators of research. Many- and apparently most - two-year colleges, give only casual attention to the organization for and conduct of institutional research.
4. Consultants are seldom used as aids to junior college programs of institutional research
5. Only half of the colleges maintain central files for reports of institutional research
6. It appears that comparatively few faculty members participate in institutional research
7. A number of administrators express concern about justifying the costs of institutional research
8. Although little evidence was assembled regarding use of the findings of institutional studies, several respondents express a need for encouraging the effective use of such findings
9. A number of administrators point out the importance of disseminating the finding of studies made by junior colleges

1. Johnson, B.L., op. cit., p. 28

10. Although a wide range of problems and subjects are investigated, instruction and methods of teaching are notably neglected

11. Both the quality of research and the effectiveness of reporting varies widely from college to college. In all too many colleges the quality of research is distinctly inferior.

The comprehensive survey of institutional research in the junior colleges of the United States by Swanson adds further conclusive evidence that junior college personnel are vitally concerned with and sensitive to the central importance of research in the junior college. Swanson's research indicated that junior colleges rely heavily upon research findings in decision-making. It is interesting to observe that research is primarily concerned with the most significant aspect of professional responsibility - the improvement of the instructional program. His survey established that although "institutional research programs are often thought to be arms of the administration, and although research findings are vital to the making of administrative decisions, this area took second place to curriculum planning in reports of the uses made of research. Almost three fourths of the colleges, more than 72%, listed curriculum planning as an area in which research findings are employed." [1.]

Other areas to which institutional research findings are applied include: making administrative decisions, reported by 67% of the respondents, improving instruction, 67%, establishing policies and

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1. Swanson, H.L., An Investigation of Institutional Research in the Junior Colleges of the United States, Doctoral Dissertation, UCLA, 1965, p. 68

procedures, 67%, establishing goals, 63%, preparing for accrediting, 62%, and planning for future needs, 60%.

The emphasis which these surveys, reports, and articles place on institutional research is not only indicative of the vital nature of research in a dynamic junior college program but also reflective of the essential need to plan competent, continuous, constructive research programs designed to meet the vast area of challenges facing the junior colleges in a rapidly expanding period of growth.

One of the important responsibilities of the junior college is to study the most effective utilization of faculty services - due to "the sharp expansion of junior colleges, rising costs of education... the increased difficulty of procuring adequate numbers of qualified instructors, and the continuing development of widely varied aids to teaching and learning."[1.] Action research programs have a clear-cut challenge in this matter - especially in view of Johnson's findings regarding new developments in this area: "first, there is comparatively little formal indication of new plans (for faculty utilization), and second, there are in the strict sense of the term, few actual experiments in the use of faculty services."[2.]

To meet these challenges, institutional research programs must therefore be planned to marshall not only personnel, faculties, and finances, - but also the commitment to energetically initiate self-appraisal plans and programs.

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1. Johnson, B.L., op. cit., p. 5
2. Johnson, B.L., op. cit., p. 73

The ensuing sections will formulate recommendations which are in harmony with guidelines in junior college literature, contemporary philosophy, and current practices in "lighthouse" junior colleges, and thus hopefully meet the challenges that B. Lamar Johnson identified in his study, Islands of Innovation.[1.]

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1. Johnson, B. L., op. cit.

GUIDELINES FOR THE OFFICE OF

RESEARCH AND DEVELOPMENT

General Policies

Definition of Institutional Research

A prominent President of a southern California Junior College recently asserted that "the key to effective administration is the ability of the president and those who work with him to ask the right questions and then to find the right answers. But the right answers to the right questions, whether they are specific in relation to a given institution or whether they are more comprehensive, must take into account all the relevant, factual data - the kind that only institutional research can provide."[1.] In keeping with this and the aforementioned views concerning the critical, central importance of institutional research, then, it is essential that institutional research be defined in order to clearly identify the functions and responsibilities of the proposed Director of institutional research at Pasadena City College.

Speaking on a forum sponsored by the American Association of Junior Colleges on institutional research in Seattle, West defined institutional research as the "attempt to find out what is happening in or to an institution, or what might or should happen, so that these events can be known, anticipated, possibly guided or controlled...the systematic, continuous, organized, purposeful, evaluative, study of the institution itself... for not only must an institution concern itself with its own destiny, it must relate its existence to other institutions and sometimes to problems seemingly far afield but with which its destiny is closely associated."[2.]

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1. Marsee, S.E., "A President's View of Institutional Research," Research Conference, El Camino College, California, November 1964, p. 1
2. West, E.D., "Institutional Research in the Junior College," Manuscript, American Association of Junior Colleges, Seattle, February 1963, p. 2

Briggs defines research as "a careful and systematic inquiry, usually requiring considerable time and using the best developed techniques. It has one or more of the following purposes:

1. To ascertain facts presumably useful in the solution of some recognized problem
2. To prove - that is, to test the soundness of a theory or hypothesis
3. To discover a principle or law useful as a criterion of conclusions tentatively reached, or to direct future thinking or actions
4. To test the conclusions reached by previous research or a conclusion stated arbitrarily without supporting evidence
5. To develop techniques that will be useful in further research
6. To make comparisons of the relative effectiveness of two or more procedures." 1.

Commitment to Institutional Research

The most highly qualified Director of institutional research with a sound definition of purpose would be of little consequence, however, unless a formal and realistic commitment to institutional research is spelled out by board of education policy providing a broad operational framework in which a director of research is challenged to develop creative research programs.

Swanson's study recommended that each junior college commited to developing an effective program of institutional research should "formulate a basic philosophy of institutional research - a philosophy which projects for a particular institution the creative, dynamic spirit of curiosity." 2.

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1. Briggs, T.H., "Research in Education," Phi Delta Kappan, Vol. XLVI, No. 3, November 1964, p. 100
2. Swanson, H.L., op. cit. p. 189

In order to meet this commitment it is recommended that the President of Pasadena City College assume the responsibility for formulating, with appropriate members of his staff, and representatives of the Faculty Council, a written policy regarding institutional research. The policy should then be recommended for adoption to the board of education by the President, and printed in the school catalogue and Faculty Handbook in order to place institutional research at Pasadena City College in its critically essential, proper perspective and to encourage widespread involvement in research by faculty members.

Personnel

Qualifications of the Director of Research: To fulfill this commitment will require the selection of a director of research who has a broad range of professional education and experience, an abiding interest in research, and a deep well of creativity. Mooney would stipulate that a research director should be a person "for whom research is a continuing and substantial part of his way of life...a man for whom research is a vitalizing force in life, and who in gaining that vitality, gives to society in return, a vitalizing growth to education." [1.]

Mayhew recommends that the director "should be a person who has had teaching experience and who can command the respect of the faculty. He should have a good background in mathematics, and should be able to work with electronic data processing. He should have at least a master's degree and a doctorate would be preferable. The director should be fa-

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1. Mooney, R.L., "Nurturing the Educational Researcher as a Creative Artist," Chapter XI, The Training and Nurture of Educational Researchers, Phi Delta Kappa, Bloomington, Indiana, p. 224

miliar with the problems of education but should not have a rigidly established position on issues." [1.]

West maintained that "it matters little in what field his technical training occurred. Large institutions may require someone with knowledge of advanced data processing, small institutions may get along with simple arithmetic. He should have adequate training for the job. Mathematics, psychology, and economics provide good backgrounds. Above all, he must be familiar with the problems of education, be reasonable, unbiased, curious, with a somewhat detached view of problems...(have) a passion for anonymity and at the same time an identification with the broad concerns of the college, the community, and the country." [2.]

Responsibilities of the director of research: The two "lighthouse" junior colleges which have led the grass root movement in institutional research by the assignment of full-time directors of research with appropriate secretarial-clerical staff and office facilities are Orange Coast College and El Camino College. It is therefore proposed that the general duties of the director of research and development at Pasadena City College initially parallel those at these colleges - with modifications to be made as needs and conditions at Pasadena City College warrant.

The responsibilities proposed are:

1. To plan, organize and conduct, under the direction of the President, a comprehensive program of institutional research at the College.

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1. Mayhew, L.B., "Organization and Administration of Institutional Research." Institutional Research in the Junior College, Occasional Report # 3, University of California at Los Angeles, California, 1962 p. 17
2. West, op. cit., p. 7

2. To provide a structured system for cataloguing research reports in the Student Placement Office, and establishing a depository where they could be stored and referred to as needed for dissemination of results. It is recommended that they be filed by subject, cross-filed by author, and assigned a year and numeral system - i.e. numerical, sequential order for the year received.

3. To assist staff members whose studies are currently in process of completion

4. To coordinate efforts among individuals and departments providing support, direction, and access to facilities and resources at the county or state level

5. To plan, organize and conduct, with the assistance of the advisory committee, long range plans for the continuous adaptability of Pasadena City College to emerging changes of the next decade

6. To assist the President in his efforts to "consolidate the new districts" which will soon join the existing districts- in order to involve them physically, intellectually, and emotionally with the nationally recognized, outstanding program at Pasadena City College.

7. To plan, with the assistance of the advisory committee, appropriate department heads, and other involved faculty personnel, research studies concerning the effectiveness of the instructional program and the innovation and application of instructional techniques.

8. To study the feasibility of establishing a satellite campus to serve the two additional districts which might also join the Pasadena City College Junior College District, Monrovia and Duarte.

9. To disseminate via an appropriate new media (perhaps a research letter) reports of research projects conducted at Pasadena City College as well as significant research studies conducted by other junior colleges, individuals, or organizations

10. To provide critical data requested by the President -and/or by the advisory committee which will be needed in decision-making

11. To plan with the United States Office of Education, State Department of Education, and appropriate personnel at the University of California at Los Angeles, the policies and procedures for the involvement of Pasadena City College in project ERIC in order to keep research efforts in harmony not only with current philosophy and practice but also to meet the creative, vast potentials of electronic data processing procedures

12. To serve Pasadena City College in the significant role B. Lamar Johnson suggests - "a vice president in charge of heresy- in order to share daring and often unworkable ideas and dreams (which) might well point to needed directions and opportunities for junior college development." [1.]

Budget and Facilities: At an address delivered at the fall conference of the California Junior College Association in Fresno, October 1965, Hoyt identified "some situational necessities which must be provided for a research office namely, commitment, staff, and financing. He recommended that "at a minimum, a college of one thousand should hire one full time

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1. Johnson, B.L., op. cit., p. 15

professional... and should have a fulltime clerical assistant...and a minimum data analysis budget of $1,000. Larger colleges naturally need more." [1.]

Pasadena City College with an enrollment of 15,515 students should certainly have no less than one full time professional, one full time secretary, along with student assistants as needed, and a budget of sufficient size to support adequate research. If only one-half of one percent of its 1964-65 budget of $8,378,688 were spent on research, its operational budget for the office of research and development would be $41,983.

Recommendations growing out of conferences with various administrative personnel at Pasadena City College suggest that the research office be located in building C - utilizing rooms adjacent to the extended day office. Minimal purchases of equipment will also be essential to properly equip the office with basic accoutrements: desks, chairs, file cabinets, electric spirit duplicators, rapid photocopy machines, electric typewriters and stationary supplies.

Organizational Pattern: The comprehensive survey of institutional research by Johnson of one hundred junior colleges in thirteen Western States revealed that less than one third (29%) of the junior colleges were organized to carry on coordinated research. Most of these (27%) had part time coordination, usually an individual, but in four colleges a committee. Two institutions reported full time coordination. One of these had an administrative

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1. Hoyt, D.P., "Research Needs and Opportunities to Implement More Realistically The Open Door Policy," An Address, California Junior College Association, Manuscript, Fresno, 1965

dean for institutional research and the other a faculty committee whose chief responsibility is institutional studies.[1.] Forty three percent of those studied reported a "decentralized organization for institutional research. On the basis of his experience at Stephens College where he served as dean of instruction for more than twenty years, Johnson stated that the College was "committed to research and experimentation in developing its program."[2.] In order to infuse the research point of view into every phase of the program, the work of the Research Service was decentralized, he reported. Instead of depending upon a small central staff to carry on research, the Service encouraged and helped all members of the faculty to apply the techniques of research to study their particular problems. The rationale for this form of organization Johnson claimed rested on Kurt Lewins' studies which indicated that "the extent to which social research is translated into social action depends on the degree to which those who carry out this action are made a part of the fact-finding on which the action is based."[3.] Thus Johnson asserted that "wide-faculty and student participation undergirded by expert guidance and assistance may aid research programs to expand quantitatively-and to expand qualitatively."[4.]

Mayhew recommends that the office of institutional research should be responsible to either the president or the academic dean - and should be given a budget large enough to support whatever program is decided upon.

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1. Johnson, B.L., "Institutional Research in the Junior Colleges of Western States," op. cit., p. 21
2. Ibid,, p. 28
3. Lewin, K., Resolving Social Conflicts, Harper & Bros., New York City, 1948, p. 68
4. Mayhew, op. cit., p. 17

Reporting on the new position of Administrative Dean for Research which was recently created at Orange Coast College, Nelson indicated that the research officer functions "under the direction of the District Superintendent and President to develop and conduct a comprehensive program of research." [1.]

In 1959 a Coordinator of Research was appointed at El Camino College who is administratively responsible to the Director of Instruction, the Director of Student Personnel, the Director of Business, and to the President of the College - each having equal call on his time. President Marsee reports that a clearing committee, which consists of three directors, the coordinators, and the President was formed to aid in determining the need for research and to approve each project prior to its inception. The committee serves "as a buffer for the Coordinator (of research), provides an opportunity to define and to delimit problems to be explored, and acts in review as a sounding board for the Coordinator while research is in progress." [2.]

At City College of San Francisco, one person, the Director of Testing, Research, and Guidance, has been assigned the responsiblity for supervising curricular and student personnel research. His staff includes "a counselor assigned to research duty on a one-third time basis, and a full time clerk-secretary. In addition, from four to six students, employed as laboratory assistants at $1.35 per hour, work on research for a total of approximately twenty hours per week. Each department in the College has a research representative who serves as a liason with the office of Research. The Director reports findings of studies to the faculty member involved, and to the deans, and the

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1. Nelson, J., op.cit., p. 30
2. Marsee, S.E., op. cit., p. 34

department staff decides on a course of action." [1.]

In the light of the overwhelming evidence gleaned from the Johnson survey and the philosophy and practices of outstanding personnel in junior colleges, it is evident that research programs must involve large numbers of faculty members in order to achieve significant objectives. As the President of Pasadena City College and staff initiate plans to consolidate the "three new districts"-(two additional districts might vote at a later date to join the Pasadena junior college district) into a cohesive, functional junior college district, it is more imperative than ever that a dynamic, effective research office be established to assist the President as he grapples with the monumental tasks he faces. In addition as the President of Pasadena City College embarks on his far-reaching, visionary plans to extend and strengthen the College's legendary, enviable position in junior college education, he must of sheer necessity be assisted by the single, most effective facility a President must have - a functional creative research office, concerned with the feature of continued college development.

It is therefore recommended that the Office of Research and Development be established, and a Director be appointed who will function as a line officer, reporting directly to the President. It is further recommended that an advisory committee be appointed by the President to give support, guidance, and inspiration to the Director of Research and Development. The Advisory Committee should be composed of the following personnel: Dean of Instruction, Dean of Extended Day, Dean of Student Personnel Services, Administrative Dean, the Librarian, and the Director of Vocational Education.

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1. Nesbitt, T., "Institutional Research at City College of San Francisco," op. cit., p. 43

Selection of Researchable Problems: At the Fall Conference of the California Junior College Association in Fresno, October 1964, Hoyt listed five conditions which characterize researchable problems of the applied type. These are of sufficient merit to warrant serious consideration by the Director of Research and Development since they provide sound guidelines. The following guides are therefore recommended:[1.]

1. The problem is important and, in principle, solvable
2. Answers must not already be available
3. Reason alone leaves one perplexed - it becomes essential that researchers and administrators utilize logic and common sense in identifying problems whose answers can't be adequately inferred from available information.
4. Necessary measures are available or can be constructed by following established procedures
5. Situational considerations must be favorable - a problem should be ignored if expense, time or competency considerations are unfavorable. If adequate funds for conducting a study are not available, it is almost certain that the action-oriented problem is not researchable.

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1. Hoyt, D.P., "Research Needs and Opportunities to Implement More Realistically the Open Door Policy," An Address, California Junior College Association, Manuscript, Fresno, 1965

GENERAL PROCEDURES

Research Oriented Service Functions

A wide range of specific services for staff personnel are proposed for the Director of Research and Development in order to help meet the aforementioned duties and responsibilities. To create and promote a constructive image, and to meaningfully fulfill his role, the Director of Research and Development should initiate procedures to provide the following services:

Cooperative Staff Planning: In order to stimulate self-appraisals, staff members might be asked to react to the question: "What issues, problems, and/or needs can be resolved or met by an Office for Research and Development at Pasadena City College?"

a. For your department or division

b. For the College generally

c. For the District

In order to provide functional follow-up assistance, specific steps are suggested:

1. Conferences should be scheduled with personnel concerned to define proposed problems for study and to identify the specific needs of the study
2. The Director of Research and Development will assist in the gathering of data, when requested by the person initiating the study
3. The Director of Research and Development will report on (similar) studies conducted by other individuals and organizations
4. The projected study will be presented by those involved to the Advisory Committee for approval

5. Recommendations of the Committee will be presented to the President for approval by the Director - who serves as chairman of the Advisory Committee.
6. When approval is granted the Director will assist with the conduct of the study
7. Progress reports as well as the final report will be presented to the President and to the faculty members in the newsletter, PCC Profile, or orally to the Faculty Senate or other groups, as conditions warrant
8. The following format might be utilized in presenting research reports along with the general conclusions:

    a. A statement indicating how the data was gathered
    b. The nature of raw data
    c. Professional appraisal of the data
    d. Analysis of probable sources of error in interpretation
    e. Limits of confidence in the data, a personal interpretation

9. Identification of personnel responsible for implementation of recommendations - and procedures for follow-up on a regular basis
10. Follow-up report to the President by the Director

Technical Assistance to staff members: Each report will include:[1.]

1. Identifying data

    a. Title of the study
    b. Name of the author
    c. Date of report - including dates of initiation and conclusion
    d. Name of organization for whom the study was conducted
    e. Personnel who participated in the study

2. Table of Contents

3. Introductory statement

    a. Purpose(s) of the study
    b. Background and information
    c. Methods involved in the study

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1. The Writer is indebted to H. Lee Swanson for major suggestions in this section

4. Findings

5. Conclusions and recommendations

6. Bibliography

7. Appendix - supplementary and/or documentary materials

Establishment of a research reference library: In addition to cataloguing previous studies as well as those currently in process, the Research and Development Office will:

1. Keep a complete file of studies conducted by Pasadena City College personnel
2. Develop check-out procedures and provide summaries of studies as requested (assuming adequate clerical personnel and duplicating facilities are provided)
3. Provide storage for all stencils or dittos when requested
4. Collect, catalogue, and exhibit appropriate research publications
5. Collect copies of staff-directed community or college studies
6. Collect copies of research projects sponsored by junior college research groups or other junior college associations
7. Collect materials of historical significance relating to the College - catalogues, school newspapers, Board of Education personnel lists, community organizations directories,budget reports and other documents of value
8. Distribute to all personnel a list of catalogued materials
9. Provide progress reports relating to project ERIC - since this innovation in data collection, processing, storing, and retrieving will soon revolutionize research procedures.

Data Gathering: The assistance which research offices render in accreditation is of unquestioned value not only to accreditation teams, but also to the administrative staff. In addition to contributions in this area, the research office can be of inestimable service in dealing with the large number of requests for information, generally questionnaires, which daily flow into junior college offices. The following procedures are recommended for responding to questionnaires and other requests for data:

1. Requests for information should be directed to the Research and Development Office by the recipient
2. Vital information regarding the nature of the questionnaire-the name of the sender, the data requested, and other pertinent information will be recorded for future reference
3. Essential but basic information will be supplied by the Research and Development Office
4. Assistance will be secured from appropriate personnel by the Research and Development Office for specialized information, calling on those best informed to provide the information
5. Copies of replies to all requests for data will be forwarded to the sender and recipient, and summaries or abstracts sent to the President

Electronic data processing: The application of electronic data processing precedures in colleges and universities has produced some most startling results. In developing a progressive philosophy of operation and to assure advance practices in research which are geared to the age of computers, the Director of Research and Development

must be alert and sensitive to the versatile and factually indispensable role computers are currently playing in research as well as in school administration.

Kaplan's report on computers in administration clearly delineates some of the wide ranges of significant tasks competently performed for alert leadership personnel. Kaplan reported that Professors Francis E. Rourke of Johns Hopkins University and Glenn E. Brooks of Colorado College, with funds from the Carnegie Corporation of New York, are studying the managerial revolution in higher education. A part of their study is devoted to an examination of the use of electronic data processing on college campuses. So far Professors Rourke and Brooks have interviewed officials of 20 institutions of higher education located in various parts of the country as well as officials of state-wide coordinating agencies and selected regional and national agencies. They have also sent questionnaires to 436 institutions of higher learning, 364 of which are four year state colleges, and universities. Three hundred and thirty seven institutions of all types have responded.

Of the 337 responding institutions, 181 are using computers for one or more administrative functions. Electronic data processing is being used primarily for the performance of routine clerical tasks, such as student registration, grade recording, and payroll processing. But the survey findings indicate a growing interest in more sophisticated uses of the computer in such areas as institutional research, admissions, student scheduling, curriculum development, and planning of physical facilities.

Student Affairs: computers are being used by 152 institutions for registrations, by 146 to process grading records, by 129 for general student records, and by 95 in the admissions process. More institutions expect to use computers in these activities in the future. Especially notable is the trend toward computerized admissions procedures.

Financial Administration: Computers are being used by 123 institutions to process payrolls, by 121 for general accounting procedures, by 69 to develop general inventories, by 64 for budget preparation, and by 44 to analyze the costs of their operations.

Physical Plant Management: Computers are being used by 62 institutions to develop space inventories, by 22 for space cost analyses, and by 17 to assign classroom space.

Policy Planning: Computers are being used by 78 institutions for institutional research projects, by 15 for long range planning, and by 6 to simulate institutional operations. In the years ahead, more universities expect to employ computers for policy planning, with the greatest proportionate increase occuring in the simulation of university operations.[1.]

Kaplan also reported that the same program that was used to simulate the academic programs of planned junior college in St. Louis (which saved an estimated three million dollars in construction cost at a cost for computer services of $15,000), the Generalized Academic Simulation Program, can be used to mimic the clerical aspects of a typical manual scheduling procedure.

At the Massachusetts Institute of Technology in the fall of 1961 it took eight minutes to schedule twenty different programs for each

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1. Kaplan, M.S., "Computers in Administration," College and Univeristy Business, October 1965, p. 68

of 1,000 entering freshmen - and then choose the best one for each. The eight minutes of processing time required three days of data processing. The total cost amounted to less than 20¢ per student. Done manually, the same job (without the benefit of 20 alternate schedules) takes eight man weeks at a cost of almost $1.60 per student.[1.]

The wide range of functions performed by electronic data processing equipment for the Chicago Public Schools also supports the wisdom of utilizing modern philosophy and methodology in dealing with complex problems. Menkhaus asserts that the "Total Information Service" philosophy and the utilization of computers had reduced teachers' clerical work load by 80% or more in the Chicago Public Schools."[2.]

Computers are aiding in or are performing the following functions for the Chicago Public Schools:

Student Master Records
Student Accounting
Food Services
Payroll Operations
Mobility Studies
Assignment of Substitute Teachers
Rapid Retrieval of Information
Class Scheduling
Budget - Print out will save $30,000 per year in printing costs

In the Chicago Public Schools computers are charged with two basic functions:

1. To assist in the execution of research projects
2. To develop the understanding and capacity among school personnel to use electronic data processing facilities in research.[3.]

It is interesting to note that one full shift of computer operation has been set aside for educational purposes. Menkhaus reports that in

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1. Ibid., p. 68
2. Menkhaus, E.J., "The Business of Automation," Business Automation May 1965, p. 35
3. Ibid., p. 54

addition to the intangible benefits it is estimated that Total Information Service will save an estimated $3,500,000 per year when it is fully implemented in 1968.

A sensitive, alert Director of Research and Development must have sufficient sophistication to intelligently capitalize on the rapidly expanding "growing edge" exemplified by electronic data processing and apply these tremendously significant and vital instruments and techniques to the solution of research problems. It is therefore recommended that the Pasadena City College Computer Science Center be assigned a "line organization" function, reporting, directly to the Director of Research and Development.

Education Retrieval Information Center: Further exciting developments are in the offing with Project E R I C. Plans are currently in process for the development of techniques and facilities for the storage and rapid retrieval of results of research studies. Thus cooperating institutions will find it possible to secure answers to perplexing problems and thereby avoid costly duplications of studies and the time lost in privately conducting studies which have previously been conducted. It is recommended that the Director of Research and Development participate in the early stages of the development of Project-E R I C by active involvement in the planning program recently initiated at the University of California at Los Angeles.

Development of Community Relationships: As the "new school districts" which will soon vote to join the Pasadena City College District attempt to identify their special educational needs and particular interests, the Director of Research and Development

will be in a most advantageous position to conduct studies designed to identify the specific nature of their needs and thus effectively become involved in research oriented participation in the various districts.

Vital statistics relating to these districts should be collected by the Director of Research, organized, and filed in the research reference library in order to intelligently plan not only for the immediate and specific curricular needs but also for long range projections.

Active involvement of a wide spectrum of personnel from the "new districts" (as well as from the present districts) in Pasadena City College affairs - and in the curricula will contribute to balance in the development of general policies related to the general welfare of students as well as to the future development of the College.

Thus, area needs will be more readily met and commitments to the College strengthened.

BIBLIOGRAPHY

Books

Johnson, B.L., Islands of Innovation, Occasional Report No. 6, UCLA Junior College Leadership Program, Los Angeles, School of Education, University of California, 1964

Johnson, B.L., General Education in Action, Washington, D.C., American Council on Education, 1952

Lazerfeld, P.F., and Sam D. Sieber, Organizing Educational Research. Prentice-Hall, Inc., New Jersey, 1964

Medsker, L.J., The Junior College, Progress and Prospect, McGraw-Hill, New York City, 1960

Miles, M.B., "Innovation in Education, Some Generalization,: "Innovation in Education, Bureau of Publication, Teachers College, Columbia University, New York City, 1964

Peterson, B.H., Critical Problems and Needs of California Junior Colleges, Committee on Institutional Research, California Junior College Association, and California State Department of Education, Foothill College, California, 1965

Phi Delta Kappa, The Training and Nurture of Educational Researchers, Sixth Annual Phi Delta Kappa Symposium on Educational Research, Phi Delta Kappa, Bloomington, Illinois, 1965

Sexson, J.S., and J.W. Harbeson, The New American College, Harper & Co., New York City, 1946

Swanson, H.L., An Investigation of Institutional Research in the Junior Colleges of the United States, Doctoral Dissertation, University of California at Los Angeles, 1965

University of California at Los Angeles, Institutional Research in the Junior College, Occasional Report No. 3, UCLA Junior College Leadership Program, Los Angeles, School of Education, University of California, 1962

University of California at Los Angeles, Establishing Junior Colleges, Occasional Report No. 5, UCLA Junior College Leadership Training Program, Los Angeles, School of Education, University of California, 1964

Periodicals

Briggs, T.H., "Research in Education," Phi Delta Kappan, 46: 99-103, November 1964

D'Amico, L.A., and S.V. Martorana, "A Decade of Research and Information, Reports on the Two-Year College," Junior College Journal, 32: 192-298, January 1962

Giles, F.T., "Guidelines for Junior College Campus Planning," Junior College Journal, 32: 471-475, April 1962

Merson, T.B., "A Plan of Cooperative Action for Junior College Improvement," Junior College Journal, 31: 505-510, May 1961

Stickler, W.H., "The Expanding Role of Institutional Research in American Junior Colleges," Junior College Journal, 31: 542-548, May 1961

Other

Brisco, W.S., An Examination of the Relationships of the Pasadena Junior College District and the Pasadena Unified District, Pasadena City Schools, Pasadena, California, Mimeograph Report, 1964

Chittenden, J.S., Placement, Annual Report 1964-1965, Pasadena City College, Pasadena, California, May 1965

Gold, B.D., "Criteria for Evaluating Junior College Institutional Research," University of California at Los Angeles, Mimeograph Report, May 1962

Hoyt, D.P., Research Needs and Opportunities to Implement More Realistically the Open Door Policy, A Speech Delivered at the California Junior College Association Conference, Fresno, California 1965

Marsee, S.E., A President's View of Institutional Research, A Speech Delivered at the Research Conference, El Camino College, El Camino, California, Mimeograph Report, November 1964

Melbo, I., An Analysis of Junior College Reorganization, Pasadena City Schools, Pasadena, California, Mimeograph Report, 1962

Pasadena City Schools, 81 Years of Public Education in Pasadena, Pasadena City Schools, Pasadena, California, 1955

Pasadena City Schools, Minutes of Special Meetings, Pasadena, California, 1964-1965

West, E.D., Institutional Research in the Junior College, A Speech Delivered at the American Association of Junior Colleges Conference, Seattle, Washington, Mimeograph Report, February 1963